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NOTES

ON

DISEASES OF WOMEN

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DISEASES OF WOMEN

SPECIALLY DESIGNED FOR STUDENTS PREPARING
FOR EXAMINATION

BY
J. J. REYNOLDS, M.R.C.S. ENG.



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PREFACE

THESE "Notes," which are now appearing in the 'Students' Journal,' under the title of "Aids to Diseases of Women," are chiefly compiled from the works of Drs Barnes, Galabin, and Atthill.

They contain all the important and common diseases "peculiar to women" which are not to be found in other works.

Cystomata, or cystic tumours of the ovary, extra-uterine foetation, &c., which are fully described in text-books of surgery and midwifery, I have omitted.

July, 1880.

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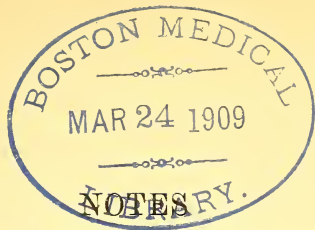
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ON

DISEASES OF WOMEN

CHAPTER I

MENSTRUATION AND ITS DISORDERS

Menstruation (Catamenia, Periods, &c).—This is the term applied to the monthly hæmorrhagic discharge from the uterus. The menstrual fluid is dark in colour, peculiar in odour, and does not coagulate on account of the vaginal mucus. It consists of blood, epithelium, mucus, serum, and the *débris* of the membrane lining the uterine cavity—the *decidua menstrualis*—and is derived from the mucous membrane of the uterus and Fallopian tubes. Just prior to menstruation, the uterus, ovaries, and surrounding erectile tissue become greatly congested, the mucous membrane of the former is excessively developed, forming the *decidua menstrualis*, which, if impregnation does not take place, exfoliates, causing laceration of its vessels and hæmorrhage. Menstruation commences in this country generally at the age of fifteen, and continues until the forty-fifth year. Its advent

is hastened by residence in hot climates, premature sexual excitement, and luxurious and easy living, and retarded by contrary conditions. Recurrence usually takes place at intervals of from twenty-seven to thirty days, the duration of each period being three to six days; but the flow is prolonged by those causes which produce congestion of the uterus, &c., as coitus, residence in hot countries, excessive exercise, &c. The quantity of blood normally lost, averages about five ounces; but those conditions which produce congestion of the uterus, tend to increase the flow. The relation the ovaries bear to menstruation is still undecided, but it seems that they are necessary for its first establishment. Generally, just before or during a period, a Graafian follicle ruptures, but not invariably; and ova have been discharged in amenorrhœic women.

Symptoms.—Menstruation is generally accompanied with a certain amount of general depression and pelvic uneasiness, even in healthy women; but in some there may be no symptoms whatever, while in others, especially those of an hysterical temperament, there may be prominent nervous signs.

Treatment.—This is very simple, and consists in avoiding exposure to cold, over-exertion, and mental disturbance.

Menorrhagia and Metrorrhagia.—The former means profuse menstruation; the latter inter-menstrual hæmorrhage.

Causes.—They are (a) general, (b) local.

(a) The general causes are :

1. General active hyperæmia, as from plethora.
2. General passive hyperæmia, as from cardiac, pulmonary, or hepatic disease.
3. Blood diseases, as Bright's disease, purpura, &c., or one of the specific fevers.
4. General debility, as from over-lactation, phthisis (rare).

5. Residence in hot climates.

(b) The local causes are :

1. Enlargement of the uterus, as from subinvolution, tumours, &c.

2. Local active hyperæmia, as from :

I. Fibroid tumours of uterus.

II. Polypi of uterus or vagina.

III. Malignant disease of uterus or vagina.

IV. Tumours of ovaries or neighbouring parts.

V. Retained placenta or membranes.

VI. Inflammations, &c., of the uterus or of the ovaries.

VII. Mental emotions.

VIII. Excessive coitus.

IX. Excessive sexual passion.

3. Local passive hyperæmia, as from :

I. Displacement of uterus.

II. Stenosis of cervix.

III. Pressure from tumours.

IV. Pelvic inflammations or effusions.

4. Morbid states of the uterine mucous membrane.

5. Granular ulceration or abrasions of the os or cervix uteri.

Menorrhagia and metrorrhagia at times seem to be idiopathic, and profuse menstruation is not at all uncommon at its first commencement, and again at the menopause.

Treatment.—It is mainly etiological when the hæmorrhage is due to a polypus, or a retained placenta, the polypus or retained placenta, as the case may be, must be removed, &c. In those cases where the hæmorrhage is profuse, where the cause has not been discovered, or is beyond treatment, it will be necessary to treat the hæmorrhage primarily.

The principles of treatment are :

I. Absolute rest, in the horizontal position, in a cool atmosphere, with the pelvis somewhat elevated.

II. Light diet and cool drinks, and some of the following drugs will be found of great use :—Ergot, turpentine, savine, gallic acid, strychnia, quinine, digitalis, aconite, and bromide of potassium. The last four drugs do good by relieving vascular tension.

III. *Local Treatment.*—Cold applications, as ice within the vagina or rectum, or on the hypogastrium; or cold or hot water vaginal injections. Plugging the vagina often stops the hæmorrhage, and it may be done while preparations are being made for other treatment. Intra-uterine injections of cold or hot water, or of styptics, or the direct application

of caustic, will be sometimes necessary, the cervix being first dilated. This preliminary dilatation of the cervix often alone checks the hæmorrhage.

Amenorrhœa, or abnormal absence of the menstrual flow. It also commonly includes "scanty menstruation." Menstruation is normally absent during pregnancy and lactation.

Causes.—They are (*a*) constitutional, (*b*) local.

(*a*) The constitutional causes are :

1. Anæmia-chlorosis.
2. Chronic wasting diseases, especially phthisis.
3. Acute diseases, especially the specific fevers, as typhoid or scarlatina.
4. General plethora.
5. Anti-hygienic conditions.
6. Mental emotions, as from bad news, passion, after illicit connection, or during the first month or two of married life.

(*b*) The local causes are :

1. Absence, ill-development, or a diseased condition of the ovaries or uterus.
2. Torpidity of the ovaries or uterus.
3. Severe inflammation of the pelvic organs, especially perimetritis.
4. Congestion of the uterus, from exposure to cold and wet, or over-exertion during a period.
5. Habitual loss of blood, as from piles.

Treatment.—When the amenorrhœa is due to one of the constitutional causes, the treatment must be

directed to the constitutional disease present. In anæmic cases, fresh air (especially sea air), plenty of out-door exercise, and abundance of nutritious, easily-digested food, are absolutely necessary. Iron is the remedy "par excellence" for anæmia, and it may be combined with advantage with one or two of the following drugs:—Iodide of potassium, quinine, aloes, arsenic, strychnia, or ergot. The re-establishment of menstruation may be encouraged in suitable cases, by warm baths, with or without mustard, warm vaginal douches, or the local abstraction of blood. Emmenagogue drugs may be given, or the uterus directly stimulated by the application of caustic, by galvanism, or the introduction of an intra-uterine stem-pessary. This latter treatment is especially applicable when the generative organs are ill-developed or in a torpid state. When inflammation is present the treatment consists of rest in bed, hot fomentations, salines, and leeches.

Amenorrhœa from Retention, Retention of Menstruation.—The menses may be retained by an occlusion of any part of the generative tract. The occlusion or atresia may be congenital or acquired, complete or incomplete.

Atresia of the Labia may be caused by:

1. Adhesion of the *labia majora* from injury or inflammation.
2. Adhesion of the *labia minora*.
3. Imperforate hymen.

The first two are generally discovered before puberty, but the third may escape detection until symptoms of "retention" arise.

Atresia of the Vagina.—(a) Congenital, (b) Acquired.

Congenital vaginal atresia may be due to partial or complete absence of the vagina, or it may be closed by a transverse septum.

Acquired vaginal atresia is far more frequent, and it may be caused by sloughing of the vaginal walls from tedious labours, one of the specific fevers, &c., or it may be due to injury, venereal, or other ulceration.

Atresia of the Uterus.—(a) Congenital, (b) acquired.

The congenital form is very rare indeed.

Acquired uterine atresia may be caused by cicatrization following inflammation, sloughing, ulceration, or an injury. Closure of the uterus may also take place from extrinsic causes as :

I. Displacement of the uterus.

II. The presence of new growths in the cervical canal.

III. From external pressure of a tumour.

IV. Plugging of the cervical canal by a clot, membranes, &c.

V. Swelling of the mucous membrane of the cervix following inflammation.

Symptoms.—They are those of amenorrhœa and dysmenorrhœa. Periodic attacks of pain, with enlargement of the uterus, which sometimes reaches to the umbilicus. Between the periods the uterus decreases in size. The effect the menstrual fluid has

on the generative tract varies with the seat of occlusion. If it is at the vulva, first the vagina becomes distended and dilated by the menstrual fluid, then the cervix uteri and uterus, and finally the Fallopian tubes. When the atresia is not complete, there will be a slight oozing of menstrual blood. If the "retention" is allowed to go on, it may terminate in various ways, viz :

I. A natural cure may take place by the occlusion bursting during some effort, as coughing, &c.

II. Reflux of blood into the peritoneal cavity may take place through the ostium abdominale of the Fallopian tubes, causing peritonitis.

III. The distended Fallopian tubes may rupture, and their contents escape into the peritoneal cavity.

IV. Septicæmia or peritonitis, not depending on rupture, or the escape of fluid into the peritoneal cavity may occur.

V. The uterus may rupture causing hæmatocele and peritonitis.

Treatment.—When there is a large quantity of retained fluid, the operation for its removal is often followed by fatal results, as the uterus is liable to be thrown into spasmodic action, causing either reflux of blood into the peritoneal cavity, or rupture of the distended and dilated Fallopian tubes. In large accumulations, the fluid is best removed by the aspirator or by a fine trocar and canula. In small collections a free incision may be made at once.

The enlarged uterus and the absence of menstruation, in retention of menstruation, must not be mistaken for pregnancy, or *vice versâ*.

Dysmenorrhœa.—This is the term used to express painful menstruation.

Dysmenorrhœa may be classified under the following heads :

- I. Neuralgic, spasmodic, or sympathetic.
- II. Congestive or inflammatory.
- III. Obstructive or mechanical.
- IV. Ovarian or dysootocia (Dr. Barnes).
- V. Membranous.

Neuralgic Dysmenorrhœa.—It is probable that there is nearly always some local condition present in this form to account for the pain, although it is true that no local cause can often be discovered. Girls of a highly susceptible nervous temperament, or those of an hysterical disposition, are chiefly affected with this form. The pain, which is very intense at times, begins a day or two before the period, and is often much relieved when the flow sets in, but sometimes continues during the whole period. It is paroxysmal in character and begins in the pelvis and shoots down the thighs and along the groin. The abdomen is often very tender, and there may be vomiting, and even delirium or mania. Patients with neuralgic dysmenorrhœa are often invalids for years, and sometimes for life.

Treatment.—During the period, absolute rest, hot

baths or fomentations, with sedative or antispasmodic drugs, as opium, Indian hemp, hyoscyamus, bromide of potassium, &c., are required. Between the periods healthy occupation, both mental and physical, is most important.

Congestive, or Inflammatory Dysmenorrhœa.—In this form the pain is generally at its height just before menstruation, and is much relieved, as a rule, when the flow appears. There is very often a slight degree of pain and discomfort between the periods.

Treatment.—It is curative and palliative. The former consists in the treatment of the various causes which produce congestion of the uterus, and will be spoken of hereafter. Saline purgatives sometimes may avert an attack, or bromide of potassium, or the direct relief of the congestion by leeches or hot baths.

Obstructive, or Mechanical Dysmenorrhœa.—This variety is caused by a number of diseases, as displacements of the uterus, fibroid tumours, stenosis of the cervix uteri, &c. These diseases and their treatment will be described later on. The pain in this form is most marked during menstruation, and is felt in the pelvis, spreading from thence to the sacrum, loins, and down the thighs. General prostration is sometimes severe, and there may be severe headache and delirium.

Treatment.—It consists in finding out and curing the disease which causes the obstruction. The

palliative treatment consists in hot applications to the pelvis and lower part of the abdomen, warm baths, and rest in bed, if the pain is severe. Sedatives and antispasmodics will also be of great use.

Ovarian Dysmenorrhœa, or Dysootocia (Dr Barnes).—In this variety the pain, instead of being referred to the pelvis and sacrum, as in the other forms, is seated in one or other iliac region. It commences at a certain interval, sometimes many days before menstruation, and when the flow appears it subsides. By local examination, it is said, the affected ovary will be found enlarged, tumid, tender, a little lower than its natural position, and a little more central. Nervous symptoms, of an hysterical character, are generally present, and there may be vomiting, reflex pains, or even convulsions.

Treatment.—Fomentations, sedatives, and antispasmodics, and in some cases leeches and chloroform must be used. The bowels must be kept open.

Membranous Dysmenorrhœa, or Exfoliative Endometritis.—This disorder is caused by the uterine mucous membrane being cast off, at the menstrual periods, in shreds, sometimes representing a cast of the cavity of the uterus, instead of undergoing disintegration, and being thus expelled. It is said that it may be due to abnormally deep exfoliation, excessive growth of the uterine mucous membrane, or its being unduly fibrous.

Diagnosis.—By some, membranous dysmenorrhœa

is thought to be nothing more than the result of an early abortion, but this has been disapproved by the numerous cases where virgins have suffered from this complaint, or wives who have been temporarily separated from their husbands.

Other membranes, besides that lining the uterine cavity, may be passed at the menstrual period, but the microscope will distinguish the casts which have the structure of the uterine mucous membrane, and sometimes even the naked eye can see the openings of the uterine glands.

Symptoms.—Pain in the pelvis and neighbouring parts precedes the flow by several days; and when the flow appears, the pain is much intensified, being bearing down and expulsive in character. The pain generally lessens after the first day. Ovarian pain is common, and there is often fulness and weight in the rectum, and irritability of the bladder.

Treatment.—The complicating diseases present must be removed by suitable treatment. A free passage should be made by straightening and dilating the cervix uteri. Sedatives must be used to relieve pain, purgatives to regulate the bowels, and tonics to improve the general health.

CHAPTER II

DISEASES OF THE VAGINA AND VULVA

Vaginitis (*Colpitis*) is the name given to inflammation of the mucous membrane of the vagina. Vaginitis may be acute, subacute, or chronic.

Causation.—The cause of the acute or subacute forms may be classified thus :

1. Specific, from gonorrhœal infection.
2. Traumatic, as from injury during labour, the pressure of a pessary, or rough coitus.
3. Secondary to one of the specific fevers, especially scarlatina.
4. Local irritation, as from irritating injections, acrid uterine discharges, or from foreign bodies.
5. Thermal, as from exposure to cold, or from the use of too hot or cold injections.

In children, vaginitis is often produced by uncleanness and worms.

Chronic vaginitis may result from :

1. An acute attack.

2. A strumous, chlorotic, or gouty diathesis.
3. Local irritation, &c.

Symptoms.—In the acute form, there is burning pain in the vagina, great tenderness, and painful micturition, and, after a day or two, a muco-purulent, or purulent discharge will appear. On examination, the vaginal mucous membrane will be found heightened in colour and swollen. The subacute form presents much the same appearance and symptoms, but in a less intense degree. In chronic vaginitis, pain is often entirely absent, and the presence of a discharge may be the only symptom. Gonorrhœal vaginitis is frequently accompanied by great œdema or abscess of the labia, buboes, or urethritis, and it may spread to the uterus and Fallopian tubes, and give rise to peritonitis. Chronic vaginitis produces relaxation of the vaginal walls, and thickening of the mucous membrane. Vaginitis may produce atresia of the vagina, or metritis, and it predisposes to prolapse of the uterus and vagina.

Treatment.—In the acute form, complete rest, with douches of tepid water or decoction of poppies, or some other sedative application, are necessary. Hot baths and laxatives should be given, and blood abstracted locally if necessary. When the acute symptoms have subsided, and also in chronic cases, astringent applications should be used.

Tumours of Vagina.—New growths but rarely attack the vagina, so I need but name the varieties

which usually occur in it. They are the fibrous, cystic, and cancerous forms.

Vulvitis, or inflammation of the vulva, is generally complicated with more or less vaginitis, but it may exist alone. It is a common complaint in children, especially the feeble and badly fed, and is produced by some local irritation, as worms, hardened fæces in the rectum, want of cleanliness, &c.

Vulvitis may also be caused by the conditions which produce vaginitis.

Treatment.—Rest, and in acute cases sedative application. After the acute symptoms have subsided, astringent lotions may be used. In children the bowels must be attended to, and when worms are present their removal is imperative. The general health must also be improved by good food, pure air, &c.

The local treatment consists in cleanliness and mild astringent lotions.

Abscess of the Labium.—This is often produced by gonorrhœa, but it may be caused by simple vulvitis, or an injury. At times a thrombus or cyst suppurates, and thus produces an abscess. They are very painful, and the treatment consists in an early and free incision.

Labial Cysts are very common and arise from occlusion of the duct of one of the vulva-vaginal glands, or one of the mucous follicles. They form globular semi-fluctuating swellings, and cause little

or no inconvenience unless irritated. They contain a glairy mucoid fluid, and are best treated by excision. They may also be incised and plugged with lint soaked in iodine. A good way to treat these cysts is to excise a small portion of the cyst-wall, and pencil the interior with caustic.

Numa Vulvæ.—This complaint is met with in unhealthy children who have been debilitated by insufficient food and bad air. It generally follows one of the specific fevers, especially measles, but dirt and neglect are supposed to originate it at times, and these latter cases are more amenable to treatment.

It commences as an inflammatory swelling of the vulva, similar to erysipelas, passing on to ulceration and gangrene, and in the cases where recovery takes place, much narrowing of the vagina is often produced. There is always great prostration.

Treatment.—The sloughing parts should be completely destroyed by strong nitric acid or the galvanic cautery, and the general health must be supported by abundance of liquid nourishment, stimulants, and tonics.

Thrombus of the Labia or Hæmatoma.—This is generally produced during labour, either from the bruising and laceration which is produced, or from the obstruction to the return of blood. It most commonly forms towards the end of parturition. It may also proceed from submucous rupture of vari-

cose veins. These tumours are known by their history, their external aspect, and fluctuating feel. They may terminate in one of three ways :

1. By spontaneous absorption.
2. The tumour may burst and external hæmorrhage take place.
3. Suppuration may occur.

Treatment.—At first, the local application of cold, and subsequently lead, lotion. If suppuration is impending, a free incision is required, and septic absorption must be prevented by the use of antiseptics.

Cancer of the Labia.—It is nearly always of the epithelial variety, and rapidly affects the inguinal glands. It is sometimes developed on a venereal ulcer.

Treatment.—Free and early excision. Any indurated glands may also be removed.

Pruritus Vulvæ.—This distressing affection may be due to a variety of conditions. It may be caused by :

1. Vulvitis, or eruptions on the labia, as eczema, herpes, scabies, &c.
2. Diabetes, or a gouty diathesis.
3. Leucorrhœa.
4. Nervous irritability, especially at the climacteric period, or during menstruation or pregnancy.
5. Malignant growths of the uterus or vagina.
6. Vascular tumours of the meatus.

7. Local irritation, as from pediculi.

8. Masturbation.

Treatment.—The attendant affection must be found out and treated. To relieve the pruritus, sedative lotions must be used. Dr Playfair recommends a lotion of morphia, prussic acid, and rose water.

CHAPTER III

LEUCORRHŒA

LEUCORRHŒA, commonly called the "Whites," signifies any whitish discharge from the vagina, and includes, in fact, all the non-hæmorrhagic vaginal discharges.

There are four varieties :

1. Uterine.
2. Cervical.
3. Vaginal.
4. Vulvar.

Uterine Leucorrhœa occurs especially in middle and old age, and consists of whitish mucus and epithelial *débris*. It is alkaline in reaction, and is often attended with a certain degree of pain.

Cervical Leucorrhœa occurs more especially during the child-bearing period, and consists of transparent, thick, tenacious mucus, resembling unboiled white of egg. This is also alkaline in reaction. Cervical leucorrhœa may prevent pregnancy.

Vaginal Leucorrhœa is met with more commonly in young women, and is generally light coloured and creamy, and consists almost entirely of epithelium and oil-globules. It is acid in reaction.

Vulvar Leucorrhœa is the form generally met with in children.

Causes.—They are (a) general, (b) local.

The general causes are :

1. Debility of the system, as from prolonged lactation, acute or chronic diseases (phthisis), &c.

2. Hæmorrhages, as menorrhagia or metrorrhagia, producing anæmia.

3. The strumous and syphilitic diatheses.

4. Anti-hygienic conditions, as bad air, scanty diet, unhealthy occupations, &c., producing a general state of ill-health.

5. Residence in hot countries, bringing on a feeble, relaxed state of health.

The local causes are :

1. Inflammations of the vagina or vulva.

2. Morbid states of the uterus, as congestion, acute or chronic inflammation, new growths, &c.

3. Morbid conditions of the cervical canal.

4. Local irritation, as from a pessary or excessive coitus, and in children (especially the strumous and ill-fed) from worms and want of cleanliness.

5. Urethral hæmorrhoids.

6. Masturbation.

It must be remembered that leucorrhœa is normally present at certain times. It precedes and follows menstruation, and it is often, if not always, present during pregnancy.

Treatment.—1. Improve the general health.

2. Remove any local condition causing the leucorrhœa.

3. Check the discharge with astringent lotions; alum, sulphate of zinc, and acetate of lead, are good astringents.

The treatment of the general health must depend upon the constitutional condition present. In struma, cod-liver oil, iron, and residence at the sea-side, will be very beneficial.

CHAPTER IV

DISPLACEMENTS OF THE UTERUS

Causes of Displacements of the Uterus in General.

—1. Conditions producing increase in the bulk or weight of the uterus, as—

I. Uterine tumours.

II. Subinvolution of uterus after labour or abortion.

III. Congestion of uterus.

IV. Inflammation of uterus.

V. Hypertrophy of uterus.

VI. Pregnancy.

2. Conditions producing diminution in the consistence of the uterus, as—

I. Pregnancy.

II. Subinvolution.

III. Uterine congestion.

IV. Uterine inflammations.

V. Feeble health.

VI. Malnutrition.

3. Conditions tending to produce relaxation of uterine supports and general loss of tone in adjacent structures, vagina, perinæum, &c., as—

I. Effects of pregnancy and parturition.

II. Vaginitis.

III. Feeble health.

IV. Malnutrition.

4. Mechanical causes pushing or dragging the uterus, as—

I. Tumours, either uterine or non-uterine.

II. Inflammatory deposits or effusions.

III. Excessive intra-abdominal pressure, as from tight lacing.

IV. Distended bladder.

5. Accidents, injuries, &c., as—

I. Falls.

II. Concussions.

III. Sudden exertion.

IV. Injuries of parturition, as ruptured perinæum.

6. Muscular effects, as—

I. Violent coughing.

II. Straining at stool.

III. Occupations which necessitate much standing, as shopwomen, or prolonged muscular exertion in the standing position, as laundresses.

7. Congenital peculiarities of the uterus.

Remarks on Displacements of the Uterus.—1. When no symptoms are present treatment is quite unnecessary; but it must not be forgotten that sterility may be the only symptom.

2. When the displacement is fixed by inflammatory adhesions or deposits mechanical treatment, as a rule, must not be undertaken.

3. Displacements may either be the cause or the consequence of chronic hyperæmia, inflammation, or hyperplasia of the uterus. In these cases rest in bed, local depletion, vaginal douches, and mild saline purgatives, are often necessary before mechanical treatment can be commenced.

4. Displacements act in three ways, producing three sets of symptoms :

I. Functional, relating to the organ itself.

II. Mechanical, by pressure upon neighbouring organs.

III. Remote or constitutional, due to the reaction of the two former.

5. Displacements tend to get worse, and there is little tendency to spontaneous reposition. They are nearly always secondary affections, and generally occur during the child-bearing period; pregnancy and parturition being the most important factors in their causation.

6. A pessary, when *in situ*, ought to cause no inconvenience or pain. A properly-fitting pessary generally affords immediate relief, and may be left *in situ* for several weeks or months.

7. A stem-pessary should never be left in the uterus for a longer period than a month or six weeks without removal.

8. Displacements frequently cause sterility or abortion.

Retroflexion and Retroversion of the Uterus.—The

former occurs when the uterus is bent backwards at the fundus only, the os uteri remaining very nearly in its normal situation.

The latter exists when the whole uterus is inclined backwards, the uterine axis not being altered.

Retroflexion of the Uterus is probably the most common displacement to which the uterus is liable. It may occur in young or advanced age, and it is usually a secondary affection, being generally developed out of a partial retroversion.

The causes producing the condition most likely to result in this displacement are mentioned more especially under Nos. 1, 2, 6, 7, "Causes of Displacements in General."

Symptoms.—They vary much in different cases. The catamenia may be profuse, scanty, or painful. Dr Atthill says that, "when the displacement is due to congestion or chronic inflammation of the uterus, terminating in hypertrophy, the catamenia are diminished in quantity, and frequently painful; but that when retroflexion is the result of subinvolution of the uterus, following labour or abortion, the catamenial discharge is increased in quantity, sometimes to an alarming degree."

Pain in the back, and a sense of weight in the pelvis, are generally present, as well as various other symptoms due to pressure and reflex irritation, as difficult and painful defæcation, bladder trouble, vomiting, &c.

By vaginal examination, &c. :

1. Cervix uteri will be found *in situ*.

2. The fundus uteri will be felt behind the os as a rounded tumour.

3. The rounded tumour will disappear if the sound be passed with its concavity backwards, and then a half-turn be given to the instrument.

Retroflexion has a twofold action on the uterus.

1. The veins are compressed by the bending of the organ, producing congestion and hindering the exit of the menses and other secretions.

2. Hypertrophy and inflammation are set up.

Treatment.—The uterus must be restored to its normal situation. This can usually be done by one of the different kinds of pessaries, the uterus being first replaced by the finger if possible. When the pessary fails to raise the uterus, or when the uterus, although raised, still remains bent on itself, it will be necessary in the first place to replace the organ either by means of a stem-pessary, pressure per rectum, or by the use of the sound as a repositor (*vide* Nos. 1, 2, 3, “Remarks on Displacements in General”).

Retroversion of the Uterus is a rare affection, and is nearly always associated either with pregnancy or prolapse of the uterus. It produces, unless extreme, comparatively little effect upon the uterus itself, the symptoms being chiefly those due to pressure and dragging, and those which belong to the hyperæmia

and inflammation present (*vide* No. 4, "Remarks on Displacements in General").

On vaginal examination :

1. The os uteri will be found to be tilted forward and elevated.

2. The fundus uteri will not be *in situ*.

3. No angle can be felt behind the os between it and the cervix.

Retroversion and retroflexion have to be distinguished from :

1. A tumour in the posterior wall of the uterus.

2. A retro-uterine hæmatocele.

3. A small ovarian tumour in Douglas's pouch.

Retroversion of the gravid uterus usually terminates in one of three ways :

1. Utero-gestation may proceed normally, the uterus rising out of the pelvis in due time.

2. Abortion may occur—three or four months.

3. Death may take place.

Treatment.—The uterus must be kept in its normal position by means of pessary (*vide* Nos. 1, 2, 3, "Remarks on Displacements in General"). In retroversion of the gravid uterus, it is necessary to keep the bladder empty, and to raise the fundus uteri above the brim of the pelvis. The latter can often be accomplished by means of two fingers in the vagina, care being taken to avoid the promontory of the sacrum. After the fundus has been raised it will be necessary to confine the patient strictly in the

recumbent position for some time, as a relapse, or abortion, is very liable to occur. The catheter must also be used regularly. When reposition cannot be accomplished, abortion must be performed.

Anteversion and Antelexion of the Uterus.—These are the forward displacements of the uterus. In anteversion, the whole uterus inclines forwards, without alteration of the uterine axis.

In antelexion, the uterus is bent forwards upon itself. The former is frequently a primary affection, but the latter, like retroversion and retroflexion, is usually secondary.

The factors producing the conditions most likely to result in the forward displacements, are enumerated under Nos. 1, 2, 3, 4, &c., “Causes of Displacements in General.”

Anteversion of Uterus.—Dr. Barnes states that coitus is not an unfrequent cause of this displacement.

Symptoms.—*Vide* Nos. 4 and 8, “Remarks on Displacements in General.”

Physical symptoms will reveal:

1. By vaginal examination, the os uteri high up, under the promontory of the sacrum, and generally pointing backwards.

2. In front of os uteri the vaginal wall will be felt tense and stretched, and through it the rounded mass of the uterus can be made out.

3. By combined vaginal and abdominal exami-

nation, the fundus uteri can be felt above or behind the symphysis pubis.

The sound will also give diagnostic signs, but it must not be used if pregnancy is present.

Treatment.—Some mechanical support is necessary to keep the uterus in its normal situation. The sound will rectify the displacement, but it usually quickly returns to its malposition without a pessary. When the abdomen is very prominent a good abdominal belt is indicated. (*Vide* Nos. 1, 2, 3, “Remarks on Displacements in General.”)

Anteflexion of the Uterus. Symptoms.—*Vide* Nos. 4–8, “Remarks on Displacements in General.”

Treatment.—The rectification of the anteflexed uterus is more difficult than that of the anteverted one. It is most important that the fundus should be raised to its normal position and retained in it. The former can generally be easily effected by means of the uterine sound, but the latter is a matter of much difficulty. A stem-pessary, when it can be borne, often accomplishes the latter purpose. When the abdominal walls are very flaccid, a good belt ought to be worn. (*Vide* Nos. 1, 2, 3, 7, “Remarks on Displacements in General.”)

Prolapsus Uteri, or downward displacement of the uterus. There are different degrees of descent of the womb. The minor degrees, in which the uterus only drops into the vagina, are usually distinguished as prolapsus; whilst the extreme ones, in which the

uterus passes forth through the vulva, bear the name of procidentia. In a large proportion of cases of prolapsus, the history is a continuous one, beginning with labour, and marked successively by uterine engorgement, subinvolution, inflammation, prolapsus, retroversion, and hypertrophy.

Prolapsus is called acute when it is produced suddenly, as by violent coughing, from a fall, &c.

Causes.—Especially those enumerated under Nos. 1, 2, 3, and 5, “Causes of Displacements in General.” In a large majority of cases this displacement is associated with elongation of the supra-vaginal cervix.

Symptoms.—They vary much in different cases, and in aggravated examples there may be much suffering. Dragging pain in the back, hypogastrium, and groins, is generally present, as well as a sense of bearing down. Micturition and defæcation are difficult. Menorrhagia may exist, and there is nearly always leucorrhœa. In cases of old standing, when the prolapse is complete, the mass hanging outside the vulva is frequently enormous; in them the surface of the tumour is covered with patches of ulceration, while the mucous membrane of the vagina is so altered by exposure and the effects of friction as to resemble true skin.

Treatment.—Prolapse is always a very troublesome affection, the tendency of which is to become slowly worse. The prolapse can usually be replaced by manual treatment, the patient being placed in the

horizontal position. In favourable cases, if reposition is followed by prolonged rest, a cure may result; but generally some kind of pessary is necessary to retain the uterus in its proper position. Astringent injections must be used if the vagina is relaxed. Operative measures are often necessary in this displacement, but palliative treatment should always first be tried. Much can be done by postural treatment, by astringent injections, and by the judicious use of pessaries. For an irreducible procidentia, the only available treatment is a suspensory bandage, which may support, and by gradual pressure eventually diminish, the displaced mass. When the perinæum is much relaxed, or if it has been lacerated from parturition, it will be necessary to narrow the vagina. In these cases a V-shaped portion of the mucous membrane of the anterior vaginal wall must be removed on Sims' plan. If there is considerable elongation of the cervix uteri, amputation of the cervix is indicated. This is not a difficult operation, and is best performed by the *écraseur*, care being taken not to remove any portion of the vaginal wall. When there is considerable rectocele, with impairment of the perinæum, the perinæal operation, or posterior colporrhaphy, must be performed.

Inversion of the Uterus.—This affection exists when the uterus is turned inside out. The inversion may occur in various degrees, but three are usually described—

1. Depression: The fundus falls inwards, producing a cup-shaped depression.

2. Introversion: Depression greater, and the inverted portion may project through the os in the form of a round ball, not unlike the body of a polypus.

3. Perversion: This is very rare. The whole cervix as well as the body of the uterus, is completely inverted. Inversion may be acute or chronic.

Causes.—Acute version is generally the result of parturition, being caused either by traction on the cord to remove the placenta, or by improperly applied pressure over the fundus uteri. It sometimes occurs spontaneously. Partial and irregular contraction of an enlarged uterus is generally thought to be a cause, the upper part of the uterus probably being relaxed and the lower part contracted. Apart from child-birth, it is chiefly caused by a fibroid polypus, or a submucous fibroid; but inversion of the uterus under any condition is rare.

Symptoms.—In recent inversion they are generally well marked, but vary much with the degree of inversion. If the inversion is great, there will be severe nervous depression, and generally free hæmorrhage. Occasionally, severe abdominal pain and cramps are present. On vaginal examination, the uterus will be felt in the vagina, or may even be seen outside the vulva. In slight cases there may be no symptoms, and in cases of the first degree, the

cup-shaped depression of the fundus may be felt through the abdominal walls. In chronic cases there is generally hæmorrhage and often leucorrhœa, as well, which is caused by the inverted mucous membrane of the uterus getting irritated and inflamed. From the pressure of the displaced uterus, bladder and rectal irritation are often set up.

Prognosis.—It is very grave. Cross states that about one third of all the cases are fatal, either very soon or within a month. Death may be due to sloughing or gangrene of the inverted portion, hæmorrhage or gradual exhaustion. The shock alone is sometimes so great as to quickly cause death.

Diagnosis.—Inversion has to be distinguished from a polypus or fibroid tumour, and prolapse of the uterus and vagina. The following are the chief signs of distinguishing inversion from a polypus :

1. The history of the case. In recent inversion this is very important. The sudden shock and hæmorrhage following labour point to the nature of the disease.

2. By manipulation from the rectum, and through the abdominal wall, the fundus uteri will be found absent from its normal position in inversion, or a funnel-shaped depression may be felt. In polypus, the fundus will be *in situ*.

3. On vaginal examination in inversion, a rounded tumour will be felt, soft or hard, very vascular, with

a velvety surface, which bleeds on slight manipulation. It will be painful to the touch, and its size will vary from alternate contraction and dilatation. A polypus is not sensitive, it does not change its size, and is not so vascular.

The diagnosis from prolapse of the uterus and vagina can easily be made by means of the sound. Its admittance for a distance of two and a half inches or more at once proves the existence of prolapsus.

Treatment.—An inverted uterus may cure itself in one of three ways:—

1. Spontaneous reinversion may take place.
2. The uterus may separate by gangrene, and a cure take place.
3. Cases are related where the uterus has been torn away and recovery followed.

In recent cases the taxis is generally successful, the part last inverted being returned first.

In chronic inversion taxis is dangerous—then gradual, continuous, and long-sustained pressure on the tumour is required, either by means of an air-pessary or an elastic pressure. If these means fail a repositor will be necessary, and, as a last resort, amputation of the inverted uterus may be required, but it must be remembered that, at times, inversion exists for years without injury to health.

CHAPTER V

NEW GROWTHS OF THE UTERUS

Polypus Uteri.—There are six varieties of polypi, viz. :

- | | |
|------------------|-------------------|
| 1. The Fibrous | 4. The Vascular. |
| 2. The Mucous | 5. The Placental. |
| 3. The Granular. | 6. The Fibrinous. |

The Fibrous Polypus.—This is the most common variety. They usually grow from the fundus uteri, and have their origin in the submucous tissue. They are firm, usually solitary, and pedunculated, and are composed of fibro-cellular tissue. They cause enlargement of the uterus and give rise to hæmorrhage, either in the form of menorrhagia or metrorrhagia, leucorrhœa, and pain of a bearing-down or expulsive character.

Bladder and rectal irritation may be present, and the polypus may set up ulceration of the cervix uteri, metritis, septicæmia, or peritonitis. It must be remembered that a polypus may cause abortion, but, as a rule, they prevent pregnancy.¹

Treatment.—This variety is best treated by the écraseur, and the after-application of nitric acid. There is generally free hæmorrhage.

The Mucous Polypus.—This variety generally grows from the os uteri. They are usually very vascular, red in colour, small, soft, and pedunculated, and are made up chiefly of connective tissue, containing one or more mucous follicles, and a soft and viscid fluid, the whole being capped with a very vascular mucous membrane.

These polypi generally produce either menorrhagia or leucorrhœa, and at times dysmenorrhœa.

There may be no symptoms.

Treatment.—Torsion and the after-application of nitric acid, or the cautery, or the wire *écraseur* may be used.

The Granular or Cystic Polypi.—These generally occur in the cervical canal, and are sessile and multiple. They are bluish white in colour, soft, and seldom larger than a grape, and are composed of a mucoïd fluid enclosed in a thin membrane. They cause leucorrhœa or hæmorrhage. The channelled polypus of Oldham belongs to this variety.

Treatment.—They may be treated like the mucous polypi, or else broken up by being seized by the forceps. Thus killed, the hæmorrhage generally ceases, but the cautery had better be applied to the spot as a further security.

The Placental Polypus.—This variety is not recognised by many authorities. It is formed from a retained portion of the placenta, and produces severe bleeding.

The Fibrinous Polypi.—These polypi always cause profuse menorrhagia, and are thought to be the result of abortion, or produced from retained menstrual fluid, &c.

Diagnosis.—A polypus which has emerged from the uterus may be mistaken for inversion of the uterus or prolapse. In the latter the os uteri may always be discovered at the lowest part of the tumour. A prolapsed uterus is very sensitive to compression. A polypus is not at all sensitive. Dr Barnes states complete inversion is distinguished by :

1. The absence of an os uteri at the lowest part.

2. By the neck of the tumour being continuous with the roof of the vagina, which is directly reflected off from it.

3. By determining the absence of the body of the uterus from its normal position, &c. The following tests, he states, will commonly distinguish partial inversion (in partial inversion, as in polypus, there is a rounded tumour encircled by a ring, permitting a sound or the finger to pass up between). The sound will not run more than an inch, perhaps less, beyond the margin of the encircling ring, whereas, in the case of polypus, it will generally run at one part or another at least two and a half inches, &c. Other diagnosis signs will be found under “Inversion of the Uterus.”

Fibrous Tumours.—These tumours vary much in size, some being no larger than a small pea, whilst

others are bigger than a cocoa-nut. They are often multiple, but may occur singly, and they are formed of the same structures as the uterine walls—non-striated muscular tissue, with a varying quantity of connective tissue.

The amount of connective tissue present depends on the age of the tumour, the oldest ones containing the largest amount, whilst those newly developed consist almost entirely of muscular tissue.

Fibrous tumours are encapsuled, and occasionally cysts are developed in their interior—fibro-cystic tumours. There are three varieties:

1. The subperitoneal or extra-uterine. This variety grows from the peritoneal surface of the uterus, and can be felt through the abdominal walls.

2. The submucous or intra-uterine, growing directly beneath the mucous membrane and projecting internally.

3. The intramural or interstitial. These grow within the substance of the uterine walls, and may become converted into the subperitoneal or submucous varieties.

The subperitoneal variety may be solitary or multiple, sessile or pedunculated. They do not generally cause enlargement of the uterus, nor do they necessarily influence menstruation or cause hæmorrhage.

The only symptoms which are often present are due to pressure. By descending into the pelvis,

bladder and rectal irritation may be set up, and if pregnancy should take place, abortion would probably be the result, or a tedious labour followed by hæmorrhage.

Pedunculated tumours floating about in the abdomen may interfere with respiration, the circulation, or with the movements of the intestines. The intramural fibroids are very common, and cause hypertrophy, enlargement, and frequently distortion of the whole uterus. They nearly always produce hæmorrhage and leucorrhœa, and often dysmenorrhœa. Local pain is usually present, and it is frequently of a spasmodic character. Owing to their mechanical pressure various other symptoms may be present, and they are often largely influenced by menstruation and pregnancy. At a period a tumour producing no discomfort may become greatly enlarged and very painful.

Pregnancy also intensifies the symptoms of fibroids; while, on the other hand, parturition is followed by their becoming much smaller or completely disappearing.

Fibroid tumours are often the cause of sterility, but if impregnation takes place abortion is very liable to occur.

Prognosis.—Fibroids do not, as a rule, cause death, but they may do so from hæmorrhage, asthenia, peritonitis, blood poisoning, metritis, or from the effects of pressure. At times a fibroid cures itself.

There are four ways by which a natural cure may take place :

1. The tumour may become absorbed. Fibroids grow very slowly, and after a time have a tendency to cease and diminish. Cases of absorption are not very rare, especially about the menopause or as the result of involution after delivery.

2. The tumour may undergo fatty or calcareous degeneration, and be finally separated and cast off.

3. The tumour may become spontaneously detached and expelled.

4. The tumour may become gangrenous and slough away as the result of operation, or from the effects of pressure.

Diagnosis.—This is often difficult. The large fibro-cystic tumour must be distinguished from an ovarian tumour.

Dr Atthill, in his work, gives the following tabulated form of the differences between ovarian cystic disease and uterine fibro-cystic disease. He states, however, that there is not one of the symptoms enumerated which is not liable to great variation, and that, therefore, the most extreme caution must be exercised in forming an opinion based on them :

*Ovarian Cystic
Disease*

*Uterine Fibro-Cystic
Disease*

May occur at any age, but probably more fre-	Rarely met with in early life. Of 23 cases
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quent before the age of thirty-six than after it. Of 281 cases recorded by Mr Clay, and of which the ages were known, 168 were under thirty-six, 68 of these were aged between seventeen and twenty-five years.

Previous history often throws light on the diagnosis, a tumour being frequently felt at first in one or other iliac region, which gradually extended across the abdomen.

Growth of tumour, comparatively rapid.

Menstruation sometimes normal, but frequently irregular, and as the disease progresses is liable to be suppressed; profuse menstruation of rare occurrence.

Uterus of normal size, frequently drawn upwards, so as to be difficult to reach; movable, un-

recorded by Mr Clay, in which the operation was abandoned in consequence of the disease being extra-ovarian, thirty-four was the age of the youngest patient.

Such a history unlikely to occur, growth usually more central.

Growth, comparatively slow.

Menstruation profuse, if tumour be intramural or submucous, normal if subperitoneal.

Uterus elongated if tumour be in its substance or interior. Sound often passing for a con-

less bound down by adhesions, and sometimes anteflected. considerable distance into its cavity; when tumour is rotated sound moves with it.

Tumour becomes softer as it increases in size. Time not likely to alter consistence of tumour.

Urine voided without difficulty. Difficulty in passing water occasionally experienced from pressure on bladder and urethra.

Generally health always suffers more or less, sometimes to a great degree. General health does not suffer, unless menorrhagia be present.

The diagnosis from pregnancy is usually easy. In pregnancy the enlargement of the uterus is uniform; in fibroid disease the contour is generally irregular.

The history of the two cases is quite different, while the presence of menstruation, the absence of cervical softening, and other signs of pregnancy, will prevent an error.

Displacements of the uterus can be distinguished by the sound.

When the uterus is restored to its normal situation the supposed tumour will have disappeared. It must be remembered that a flexion and a tumour may coexist.

The other diseases which may simulate a fibroid are retro-uterine hæmatocele, perimetric inflammation and malignant growths in the lumbar glands, peritoneum, or intestines.

The diagnosis of these diseases can generally be arrived at by careful palpation, the sound, the history, and general symptoms present.

Treatment.—When it is remembered that fibroids have a tendency to stop growing and diminish in size after the menopause, it is obvious that no severe operative measures for their removal should be thought of.

A natural cure also is not very rare, and fibroids often produce no distress.

Generally, palliative treatment only is required. Hæmorrhage and leucorrhœa must be restrained. When the former resists minor treatment it will be necessary to dilate the cervical canal, either by mechanical means or by incision; and if bleeding continues, to swab the interior of the uterus with fuming nitric acid or strong perchloride of iron.

The submucous pedunculated fibrous tumours may be treated like the ordinary fibrous polypi, with the wire *écraseur*, &c.

When palliative measures are of no avail, and the condition of the patient is becoming serious, more heroic treatment must be undertaken.

The different operations which have been practised are :

1. Incision of tumour.
2. Enucleation of tumour.
3. Incision of tumour and destruction of its tissue, or gouging.
4. Avulsion, or tearing away the tumour from its attachments.
5. Spaying or normal ovariectomy.
6. Removal of tumour by gastrotomy, with or without the uterus.

Incision of tumour may be required, in intramural tumours, when hæmorrhage cannot be checked by minor treatment. If ergot be afterwards given the tumour may be protruded through the opening.

Enucleation of tumour.—This operation always involves a great risk of septicæmia and peritonitis.

Avulsion.—This treatment is appropriate in those cases where natural enucleation has commenced, or to assist enucleation which has been commenced.

Spaying.—The object of this operation is to bring on artificially the menopause, and it may be performed when the symptoms demand such a severe operation.

Gastrotomy.—Only to save life should this operation be thought of. Of course, it is rarely called for.

Cancer of the Uterus.—This is a very common disease, and is generally met with in women between the ages of forty and fifty, but it may originate at any period after puberty.

Of the various forms of cancer, three only are, as a rule, met with in the womb, viz: 1st. Medullary. 2nd. Epithelial. 3rd. Sarcomatous.

The malignant growth almost invariably has its origin in the vaginal portion of the cervix uteri, and it is said that cancer of the neck of the uterus is more frequent even than cancer of the breast. At times the disease is localised to the body of the uterus, but nearly always when the body is affected it is secondary to the cervix.

Medullary cancer generally commences in the sub-mucous tissue, and as the disease progresses cancerous elements become deposited around the cervix, between it and the bladder anteriorly, and the rectum posteriorly, and in consequence the cervix becomes fixed and immovable. Ulceration follows with extensive sloughing of the morbid deposit, so that the greater part of the uterus and vagina is often eaten away forming a deep ragged cavity. Epithelial cancer is generally developed as a protuberance or an excrescence from the cervix uteri—cauliflower excrescence.

Symptoms.—Cancer sets in very insidiously, and generally the disease is far advanced before the patient seeks advice. The chief symptoms of this fatal affection may be summed up as uterine hæmorrhage, pain, fetid discharge, and those due to pressure and the action of the malignant disease on the general health.

Hæmorrhage is the most important symptom, and

it is the one which generally first attracts attention. It may be in the form of menorrhagia or metrorrhagia. It is frequent and profuse in cancer of the body of the uterus. Uterine hæmorrhage occurring after the menopause has for some time passed is always suspicious of cancer.

Pain is usually absent in the early stage of cancer of the cervix, but when the disease has extended beyond the cervical canal, pain of a stabbing, lancinating character sets in, and often becomes constant and agonising. Pain is especially well marked, and often an early symptom in cancer of the body of the uterus.

The fetid discharge is very characteristic of cancer, but it is not present until ulceration commences. In the epithelial form the discharge is not so foul, but more watery.

The effects of cancer on the general health are well marked when the disease has been present some time. It produces general emaciation, and a sallow-yellowish tint of skin.

Diagnosis.—The diagnosis of the earliest stage of cancer may be one of very great difficulty. Hyperplastic induration of the cervix has often been mistaken for this disease.

The following tabulated form of the symptoms of these two diseases I have taken from Dr Atthill's work.

*In Chronic Inflammation
of Cervix*

The history of the case is always chronic, often dating back several years.

Pain always present; generally more severe over left ovary than elsewhere.

Menstruation scanty and frequently painful.

Digital examination: cervix feels hard to the touch, but smooth; pressure with the finger causes pain

Uterus movable.

Vagina not implicated.

Discharge inodorous and muco-purulent.

Pelvic peritonitis can be distinguished from cancer by its history, and by the fact that the disease is around the cervix, whereas in cancer it is in the cervix itself.

In Cancer

History: symptoms seldom noticed till within a comparatively recent period.

Pain seldom felt in the early stages; most severe in the back.

Menstruation, if patient be young, will be increased; if advanced in life hæmorrhage may be the first symptom noticed.

Digital examination: cervix indurated, uneven, and nodulated; pressure does not cause pain.

Uterus fixed.

Vagina frequently implicated.

Discharge generally fetid.

Syphilitic affections often simulate epithelioma, but the result of treatment, and the more rapid growth and greater liability of the latter to hæmorrhage will lead to a successful diagnosis.

Cancer of the body of the uterus must not be mistaken for a non-malignant tumour or metritis. The pain in cancer is generally much more severe than in the other two diseases.

Prognosis.—Cancer is almost invariably fatal. At times a cure occurs from treatment, and spontaneous cures are reported. As a rule, cancer of the womb terminates fatally within two years.

Death may be caused by :

I. Exhaustion and emaciation.

II. Hæmorrhage.

III. Septicæmia or pyæmia.

IV. Peritonitis.

V. Renal inflammation, uræmia, &c.

VI. Thrombosis and embolism.

VII. Shock attending perforation into the peritoneal cavity, &c.

VIII. Secondary growths involving some important organ, as the liver, brain, or lungs.

IX. Effects of pressure.

Treatment.—As a rule, palliative treatment only can be adopted, because the disease is generally far advanced before treatment is commenced.

Pain must be relieved by sedatives, hæmorrhage restrained, and the fetid discharge lessened by anti-

septic lotions. Severe hæmorrhage may be checked by occasional application of nitric acid, or by scraping away the diseased surface by Simon's spoon, or the sharp curette, or the cautery may be used.

Cancerous nodules may be removed by the *écraseur* or the knife, and bleeding restrained by nitric acid, or the cautery.

In cancer of the cervix uteri, when the uterus is freely moveable, the diseased mass should be excised at once, either with the galvanic or wire *écraseur*; or the whole uterus may be removed if the vagina is unaffected.

In cancer of the body of the uterus, if it is possible to remove the entire disease by extirpation of the whole uterus by gastrotomy, such an operation is justifiable.

Tubercle of the Uterus.—This a rare disease, and is nearly always a secondary affection, but it may be localised to the uterus. The tubercle is deposited in the mucous membrane, and after a short time softening and ulceration take place.

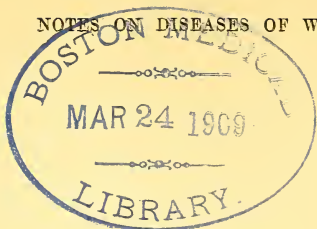
Symptoms.—1. Severe pain.

2. A purulent discharge which may be streaked with blood.

3. Enlargement of the uterus.

4. Tubercle elsewhere, especially in the lungs.

Treatment.—It must only be palliative.



CHAPTER VI

CONGESTION OF THE UTERUS.

CONGESTION or hyperæmia of the uterus is very frequently caused by imperfect contraction and involution following labour or abortion. It may be primary, and for an indefinite time constitute the chief morbid condition, but it rarely exists long, however, without inducing displacement of the uterus, especially prolapse, and sooner or later it is likely to lead to other evils, as hypertrophy and inflammation. Congestion of the uterus may be active or passive.

The causes of active congestion of the uterus are :

1. New growths in the ovary, uterus, or vagina.
2. Inflammations of the ovary, uterus, or vagina.
3. Pelvic inflammation.
4. Mental emotions, coitus, or excessive sexual passion.

5. General plethora.

Passive congestion of the uterus may be by itself a cause of subinvolution and hyperplasia of the uterus, but it is more frequently associated with active hyperæmia or inflammation, and tends to aggravate their effects.

The causes of passive congestion of the uterus are :

1. Cardiac, pulmonary, or hepatic diseases.
2. Displacements of the uterus, as retroflexion, prolapses, &c.
3. Ovarian disease, ascites, &c., causing pressure on the veins.
4. Stenosis of the cervix.
5. Peri-uterine inflammation, adhesions, or effusions.
6. Occupations which necessitate much standing, as shopwomen, &c.

Symptoms.—There is more or less pain in the pelvic region, with a sense of fulness, heat, and weight. Dragging pain is felt in the loins and groins, and often sharp colicky spasm in the stomach, and in the region of the umbilicus. By the proximity of the enlarged uterus to the bladder and rectum, frequent desire to pass water, dysuria, tenesmus, and often diarrhœa, may arise.

Menstruation may be irregular, profuse, scanty, or absent.

Leucorrhœa is nearly always present, and frequently dysmenorrhœa. The local signs are the increased bulk and weight of the organ, involving diminished mobility and more or less displacement. By the speculum the vaginal portion of the uterus is seen to be swollen and deep red in colour, and it readily bleeds on examination by touch, speculum, or sound.

Treatment.—Congestion of the uterus exhibits

little or no tendency towards spontaneous recovery. The treatment is mainly etiological. When the congestion is due to retroflexion of the uterus the displaced organ must be restored to its normal position and then the associated congestion will almost certainly be relieved, if not removed. It is most important that the bowels should be well attended to, and if there is the least tendency to constipation a saline aperient should be taken once or twice daily. In passive congestion long standing or sitting, as well as the undue use of the dorsal inclined position on cushioned chairs, must be forbidden. Local depletion often does much good both in active and passive congestion. It is especially applicable when the congestion is accompanied by intense pain and sense of weight. It may be performed either by puncturing, scarification, or by leeches.

Of the drugs which have a direct influence upon hyperæmia the most powerful is ergot. It is especially indicated when menorrhagia or metrorrhagia is present. Digitalis and strychnia also act in a minor degree.

Bromide of potassium, which is a general vascular and nervous sedative, as well as a sexual sedative, is especially useful in certain cases.

CHAPTER VII

INFLAMMATION OF THE UTERUS

Metritis.—This is the term applied to inflammation of the parenchyma of the uterus. Metritis may be acute or chronic.

Acute Metritis.—Dr Barnes states that metritis may be analyzed as follows :

1. There is the puerperal metritis springing from convection of foul matter in the venous and lymphatic channels, from the cavity of the uterus. This usually runs a rapid course, and, when fatal, it is rather by general infection of the circulation and peritonitis, than from the simple metritis. This puerperal metritis may be—(a) general, or (b) limited, more or less, to that portion of the uterine wall which corresponds with the attachment of the placenta. Both forms are likely to be attended by peritonitis; both may become chronic. In either case, the due involution will be retarded, and the uterus will remain larger than normal.

2. Very similar conditions may follow in the non-pregnant state, from the slow necrotic inflammation to which polypi and fibrous tumours are prone; from necrotic or inflammatory changes in cancerous

growths; from peculiar fungoid or other morbid conditions of the uterine mucous membrane.

3. We are, perhaps, most familiar with acute metritis apart from the puerperal state, as the result of injury or irritation produced by surgical treatment. Thus, operations upon the uterus, as incision of the cervix; scraping, or cutting, or tearing away of fibroid tumours; the application of caustics to the interior of the uterus, especially in the form of injections; the use of tents, laminaria, or sponge; and above all the wearing intra-uterine pessaries, may induce metritis. In all these cases there may be absorption of foul matter by the vessels which permeate the walls of the uterus.

In all these cases, he further states, the inflammation mostly invades all the tissues of the uterus, mucous, muscular, vascular, and peritoneal, and almost invariably spreads to the cellular tissue on either side of the neck, involving the broad ligaments. Generally the extra-uterine inflammation predominates over the metritis proper.

Chronic Metritis is generally the result of an acute attack or of persistent congestion. It may, however, come on slowly from irritation produced by fibroids, cancer, &c. It leads to hypertrophy of the uterus, with great increase of the connective tissue, and in the majority of cases the cervix as well as the body is involved. It most frequently arises from subinvolution of the uterus.

Two stages of chronic metritis are described :

1. The stage of infiltration or softening. In this stage the tissue of the uterus is soft, red, swollen, and succulent from infiltration of serum, and therefore prone to displacement. The uterus is enlarged, and its mucous membrane is almost invariably the seat of chronic catarrh.

2. The stage of thickening and induration. In this stage diffuse interstitial hypertrophy takes place by the growth of the connective tissue. The uterus becomes anæmic, hard, dry, and enlarged.

Chronic metritis may set up ovarian disease, chronic catarrh of the Fallopian tubes, pelvic inflammations, vaginitis, chronic cystitis, skin diseases, and various nervous disorders, as hysteria, facial neuralgia, pruritus vulvæ, &c.

Symptoms of Metritis.—Pain is always present, and its seat and intensity vary much. Pain and a sense of heat or throbbing are usually felt in the hypogastrium, pelvis, and back. It is much increased by movement, or by any bearing down or forcible expiratory effort, as coughing, defæcation, &c. Headache, nausea, and vomiting are common symptoms.

In acute cases there is high temperature, quick pulse, and rigors, and in chronic cases fever is often observed.

When acute metritis arises during a "period" the flow is generally stopped. Septic metritis has a

similar effect on the lochial discharge, or that which follows abortion.

In the chronic form menstruation may also be suppressed; but sometimes an attack of menorrhagia or metrorrhagia supervenes. Dysmenorrhœa is almost inevitable, and sterility is nearly constant.

On local examination:—1st. The vagina feels hot, tense, and tumid. 2nd. The cervix will be swollen and sensitive, its arteries often pulsating strongly. If the speculum be used it is seen to look red, and to contain shreds of mucus, &c. 3rd. The os uteri will be patulous. 4th. The uterus will be increased in size, and very tender on pressure.

The sound should not be used as a general thing. If employed, the most acute pain is produced, and usually some bleeding. The uterus will be mobile as long as the inflammation is limited to that organ. In acute metritis, however, the uterus is almost invariably more or less fixed. In the chronic forms of metritis the simple vaginal touch may, not in every case, produce pain.

Diagnosis.—Metritis must be distinguished from congestion of the uterus, a uterine tumour, or perimetritic disease. In simple congestion fever is generally not present. There is not the burning heat in the vagina, nor the same degree of tenderness of the uterus.

Duration and Prognosis.—The duration of acute metritis, if not complicated with septic conditions or

perimetritis, is generally from one to two months. The usual termination is in resolution, but simple acute metritis is apt to pass into the chronic form of the disease, and relapses are very likely to occur at the menstrual periods.

In septic metritis the prognosis is always grave, and bad cases pass rapidly into purulent peritonitis, and end fatally in spite of all treatment.

Treatment.—In septic metritis the exciting cause must be got rid of. Any retained placenta or decomposing polypus, or other tumour, must be removed. Antiseptic intra-uterine injections are required if the discharges are in any way offensive. Fever must be lowered by large doses of quinine, pain subdued by opium and morphia, and the strength supported by milk, beef-tea, tonics, and stimulants.

Locally, fomentations give great relief, and of course absolute rest is most important.

In simple acute metritis leeching is often very beneficial, and at the commencement of the disease calomel and opium may be given. After this salines combined with sedatives are required.

Chronic metritis is a most intractable affection, and has a tendency to terminate in hypertrophy and induration in spite of treatment.

The principles of treatment are :

I. The postural treatment.

II. Local depletion by leeching or puncturing the cervix.

III. Counter-irritation by means of blisters applied above the pubes or to the sacrum.

IV. Vaginal douches of hot water, warm baths, &c.

V. When endometritis exists it is necessary that every effort should be made to restore the mucous membrane to a healthy condition; till this is done no progress will be made towards the cure of the other affection. In these cases, however, intra-uterine medication must be used with great caution.

Endometritis.—This is the term given to inflammation which is more or less limited to the lining membrane of the uterus. Endometritis may be acute or chronic. In the most acute forms of this disease the cervix as well as the body of the uterus is affected. Acute metritis as I have previously stated, is always complicated with acute endometritis. Chronic endometritis is very often more or less limited to the cervical cavity. When this is the case the disease goes by the name of endocervicitis, or cervical endometritis.

Acute Endometritis—Causation.—1. Exposure to cold, especially at a period.

2. Extension of inflammation from the cervix or vagina, particularly gonorrhœal infection.

3. One of the specific fevers, as scarlet fever, variola.

4. Displacement of the uterus, stenosis of the os, &c., causing a partial retention of the menses.

5. Excessive coitus.

In acute endometritis the mucous membrane, Dr

Galabin states, is swollen, softened, and injected; that of the body of the uterus secretes at first thin serum, and afterwards the muco-purulent fluid, often tinged with blood.

The secretion of the cervix, normally clear and tenacious, becomes more copious, thin, and turbid. The inflammation, he further states, is liable to extend along the Fallopian tubes and attack the peritoneum, even when the substance of the uterus is not involved in any great degree.

Chronic Endometritis—Causation.—(a) Predisposing, (b) exciting.

(a) The predisposing causes are :

1. The strumous, rheumatic, and gouty diatheses.
2. General debility.
3. Syphilis.
4. Anæmia chlorosis.

(b) The exciting causes are :

1. Disorders of involution of the uterus.
2. Displacement of the uterus or stenosis, retarding the escape of secretions.
3. Retention of portions of placenta, clots, &c.
4. Extension of inflammation from the vagina.
5. Results of acute endometritis and metritis.
6. Mechanical irritation as from intra-uterine pessaries, excessive sexual intercourse, &c.

Symptoms of Endometritis.—There will be pain with a sense of heat and weight, or throbbing in the pelvis, and pain also in the back, groins, and thighs.

It is increased by exertion, and often attended by dysuria. Rigors and high fever, and perhaps nausea and vomiting, will be present at the commencement of an acute attack.

Dysmenorrhœa nearly always exists, and generally at some stage of the disease menorrhagia or metrorrhagia. At times there is amenorrhœa. If the disease arises during menstruation, its immediate effect is usually the arrest of the flow.

Uterine leucorrhœa is invariably present, and in chronic cases is often the first symptom to attract attention. It causes irritation of the vagina and vulva.

Symptoms due to reflex irritation are generally present, more or less markedly, in all cases of endometritis, as rectal, vesical, and gastric irritation, neuralgic pains down the legs, along the edges of the false ribs, hyperæsthesia of the vagina, breasts, &c.

The physical signs indicating the existence of endometritis are :

I. Enlargement of the uterus.

II. Increased sensibility of the uterus.

In acute cases, the body of the uterus is found to be very tender on pressure, and if the sound is used, great pain and generally some bleeding are produced.

III. A patulous os uteri.

IV. Generally either anterior or posterior displacement of the uterus.

Prognosis.—Acute endometritis may end in spontaneous recovery, but it is very liable to become chronic, and relapses are specially likely to occur at the menstrual periods.

Chronic endometritis is a most obstinate affection, and it shows little disposition to spontaneous cure.

Treatment.—In acute cases absolute rest in bed is necessary, and the application of leeches to the hypogastrium or anus is often very beneficial. Fomentations, vaginal injections, sedatives, and salines must also be used.

In mild cases of chronic endometritis rest, warm hip-baths, mild aperients, and the local abstraction of blood will do much good, and sometimes even effect a cure, but generally the treatment has to be applied directly to the diseased mucous membrane.

There are three methods of directly treating the mucous membrane of the uterus :

1. By injecting fluids into the uterus.
2. By passing up to the fundus a stilette armed with a layer of cotton wool or piece of lint saturated with nitric acid, carbolic acid, tincture of iodine, or some other active agent.
3. By introducing a piece of solid caustic into the uterus by means of Simpson's intra-uterine "porte caustique."

Of these methods the second and third are the safest and best.

Both in acute and chronic endometritis any complicating disease, as flexion, atresia, &c., must be removed before treatment is commenced.

Chronic Inflammation of the Cervix—Chronic Cervical Endometritis — Chronic Endocervicitis.—Dr Galabin states that the majority of cases of inflammation of the cervix may be divided into two great classes: 1st, those in which the primary affection is catarrhal inflammation of the lining mucous membrane, and in which the parenchyma of the cervix becomes only moderately swollen, and eventually indurated; 2ndly, those in which the whole thickness of the cervix becomes inflamed from the injuries received in parturition, and eventually undergoes a process of extensive hyperplasia and induration, while cervical endometritis at the same time persists.

Causation.—The catarrhal form may arise from extension of inflammation from the vagina or uterus, from the effects of cold, from direct traumatic causes, &c.

General debility and the strumous diathesis are powerful predisposing causes.

The second variety is caused from the injuries received at parturition. After labour the cervix is left bruised, its epithelial covering more or less damaged, and often its substance more or less deeply lacerated. If repair does not take place chronic inflammation follows.

The following conditions may prevent the healing process :

1. Too early getting up after childbirth.
2. The laceration being very severe and too deep to heal spontaneously.
3. Displacements of the uterus.
4. The conditions which tend to prevent involution of the uterus (*vide* "Subinvolution of the Uterus").

When the mucous membrane of the cervix is denuded of its epithelial covering an erosion exists.

The term villous or papillary erosion is applied to the more severe forms of inflammation where the mucous membrane becomes raised into soft deep-red papillæ which readily bleed.

Symptoms.—The symptoms of chronic cervical endometritis, necessarily somewhat vague, are: pain, leucorrhœa, reflex irritation, and disordered menstruation.

Pain is not always present. When, however, the inflammation affects the whole tissue of the cervix there is usually pain in the back, ovarian pain, and pain along the inside of the thigh. It is increased by coitus, menstruation, walking, and exposure to cold and fatigue.

Leucorrhœa invariably exists. In ordinary cases the discharge is clear glairy, and more tenacious than normal, often blocking up the cervix, and thus causing sterility. The discharge is muco-purulent or

purulent, and occasionally tinged with blood in more severe cases, and it may irritate the vagina and vulva and set up inflammation.

Reflex irritation may produce headache, nausea, vomiting, intercostal neuralgia, &c. Menstruation is usually scanty and frequently painful. In the more acute forms of inflammation menstruation is generally profuse.

Vesical and rectal irritation may be present from the pressure of the hypertrophied cervix.

The local signs are :

I. In the early stage a soft and tumefied cervix, with hypertrophy of its mucous membrane. Its surface may be denuded of epithelium and its mucous membrane elevated into soft, deep-red papillæ, which readily bleed. In the later stage the cervix feels hard and smooth, and pressure with the finger causes pain.

II. The interior of the cervix will be full of clear, viscid mucus like the unboiled white of egg.

III. The os uteri is frequently patulous.

IV. Uterus movable.

Prognosis.—This is a very obstinate affection and has little tendency to recovery.

Long-standing hypertrophy of the cervix with induration is little amenable to remedies.

Treatment.—It must be constitutional and local. The constitutional treatment is very important and consists in giving a nourishing diet with abundance

of pure air. Gentle exercise must be taken and over-exertion, mental depression, and any depressing influence, as over-lactation, avoided. Tonics will also do much good.

If congestion, pain, and tenderness are present local bloodletting is indicated. It is best performed by puncturing the cervix.

There are various ways of directly treating the diseased cervix.

The simplest method is by vaginal injections by means of a Higginson's syringe with a long vaginal tube. In this way astringent and sedative fluids can be applied. Liquid applications can also be made to the vaginal surface of the cervix with a brush, and to the cervical canal by means of Playfair's probe, round which a little cotton can be wrapped. In this way carbolic acid, liquor ferri perchloridi fortior, &c., can be applied.

For severe forms of villous erosion and for extensive cystic degeneration strong nitric acid is the best application. Some inflammations may require a very strong caustic, such as potassa cum calce, and sometimes the actual cautery is needed. Scraping away the diseased surface with a curette is probably preferable to the stronger caustics.

CHAPTER VIII

ENLARGEMENTS OF THE UTERUS

ENLARGEMENT of the uterus may result from—

1. Pregnancy.
2. Retention of any of the products of conception in the uterus.
3. Subinvolution of the uterus after labour or abortion.
4. Conditions which cause obstruction at the uterine outlet.
5. Active and passive congestion of the uterus.
6. Active and chronic inflammation of the uterus.
7. Hypertrophy of the uterus.
8. Uterine tumours.
9. Tuberculosis of the uterus.

Of these causes of enlargement of the uterus I shall only here enter into the subject of “subinvolution,” as all the others, excepting Nos. 1, 2, and 7, will be found described elsewhere.

Subinvolution of the Uterus, or Imperfect Involution.
—These are the terms applied to the uterus when it fails to return to its normal size after delivery or abortion. It is a very frequent cause of enlargement of the uterus, and is more liable to occur after abor-

tion than delivery at term. The involution of the uterus should be completed within four or five weeks after delivery, and it is brought about by two conditions:

1. Muscular contraction causing diminution in the blood supply, and therefore lessening the size of the uterus.

2. Absorption and secretion.

The following conditions impede these processes, and therefore cause subinvolution of the uterus:

1. General debility, as from one of the specific fevers, phthisis, struma, &c.

2. Retention of clots, placenta, or membranes in utero.

3. Injury to the cervix during childbirth.

4. Metritis and endometritis.

5. Hæmorrhage.

6. Pelvic inflammation.

7. New growths in the uterus.

8. Too early getting up after parturition.

9. Coitus, or over-exertion too soon after labour.

Symptoms.—This affection, sooner or later, gives rise to very troublesome and distressing symptoms, of which the most prominent and alarming, and the one too, for which treatment is most frequently sought, is menorrhagia. This disease is nearly always associated either with congestion, inflammation, or displacement of the uterus; hence there will be the symptoms of the complicating disease or diseases.

Treatment.—It is (a) prophylactic, (b) curative.

The prophylactic treatment consists:—1st. In emptying the uterus of clots, placenta, and membranes. 2ndly. In securing muscular contraction by compression, ergot, &c. 3rdly. In supporting the strength of the patient by good diet. 4thly. In maintaining absolute rest for two or three weeks, and in denying marital intercourse until some time after labour.

(b). The curative treatment consists, first, in remedying any condition which has caused imperfect involution. Thus, if the uterus is displaced it must be returned to its normal site. When the constitution has been undermined by disease, as struma, cod-liver oil, iron, quinine, &c., with a liberal diet and plenty of pure air, will be required. Any complicating congestion can be relieved by local bloodletting, &c.

Mild cases of subinvolution of the uterus can sometimes be cured without any application to the interior of the uterus, by means of rest in the recumbent position, bleeding, ergot, tonics, &c., but in the majority of cases some intra-uterine application will be required, as strong solution of carbolic acid, fuming nitric acid, solid nitrate of silver, &c.

CHAPTER IX

PELVIC INFLAMMATIONS—PERIMETRIC INFLAMMATION—PERIUTERINE INFLAMMATION

THERE are two distinct varieties of inflammatory diseases which attack the tissues which surround the pelvic viscera. In one of these the inflammation affects chiefly the pelvic connective tissue, or extends up from it beneath the peritoneum into the iliac fossa. In the other, it attacks that portion of the peritoneum which covers the pelvic viscera, and is limited to it. The former is known by the names pelvic cellulitis, periuterine phlegmon, or parametritis, while the latter is termed pelvic peritonitis or perimetritis.

These two diseases generally complicate each other, and it is rare for either to exist altogether independently of the other. Thomas compares them to pleurisy and pneumonia. "Like them," he says, "they are separate and distinct, and, like them, affect different kinds of structure, and, like them, they generally complicate each other." The great influence child-birth has in producing these affections has long been fully recognised.

Coulty estimates that about two thirds of all the

cases met with occur in connection with delivery or abortion.

Their relative frequency as puerperal diseases is not known, but apart from parturition, abortion, or operations upon the cervix uteri, the peritonitic inflammation is much the more common.

Perimetric inflammation is rare after the menopause.

Pelvic Peritonitis or Perimetritis—Causation.—This disease is nearly always caused either by disease of the uterus, Fallopian tubes, or ovaries, or is secondary upon pelvic cellulitis or general peritonitis. The pelvic peritoneum may, however, be the seat of primary inflammation.

Primary pelvic peritonitis may be due to :

1. Direct reflex of blood through the ostium abdominale of the Fallopian tubes from obstruction at the uterine outlet.
2. Rupture of the walls of the Fallopian tubes, or of a cyst in one of them.
3. Rupture of an over-congested Graafian follicle.
4. Bursting or perforation of an ovarian cyst or abscess.
5. Rupture of the uterus, or of an extra-uterine gestation cyst.

Pelvic peritonitis may also arise from tubercular, cancerous, or traumatic affections.

It is frequently the consequence of suppressed or disordered menstruation.

Gonorrhœa, as I have stated under vaginitis, may cause this disease by extension of the inflammation to the lining membrane of the uterus and Fallopian tubes. It is said that nearly half of the non-puerperal cases are due to this cause.

In puerperal perimetritis the starting-point is generally an inflammation of the uterus or cellular tissue, due to a traumatic or septic cause, or a combination of the two. The peritoneum may, however, be kindled into activity by the effect of cold, premature exertion, or by emotion.

Pathology, &c.—The inflammation will vary with the acuteness of the attack. In some cases there may be little more than irritation, while more often exudation of plastic material takes place, leading to adhesions between the pelvic viscera. In acute cases there is also an effusion of serous, of sero-purulent or, in septic forms of peritonitis, of purulent fluid. The result is generally complete fixation of the uterus and hardening and swelling in the root of the vagina.

This disease may end in either suppuration or resolution. If the former takes place the abscess may remain quiescent for a considerable time, but sooner or later perforation occurs, the abscess opening in most cases into the rectum or sigmoid flexure. Perforation may, however, take place into the vagina, bladder, the general peritoneal cavity, or on the external surface.

Symptoms.—The earliest symptom is pain in the lower part of the abdomen, which is generally preceded by a rigor or chilliness. The amount of pain varies much, and the suffering may be extreme and characterised by paroxysmal exacerbations. It is generally accompanied by extreme tenderness in the hypogastrium. The pulse will be rapid, and often the temperature is considerably raised. Other signs of general and local irritation exist. Amongst them are nausea, vomiting and an anxious pinched expression of countenance, while the local mischief often causes distressing dysuria and tenesmus. The abdomen is frequently tympanitic. As pelvic peritonitis is nearly always a secondary affection, it will be preceded by the symptoms of the disease which has caused it. Primary peritonitis makes its appearance suddenly, and is often ushered in by shock or collapse. In chronic cases the symptoms are very insidious. When suppuration is proceeding, the sense of intra-pelvic pain is increased. Rigors, high temperature, loss of appetite, and other signs of suppuration, also show themselves.

*Diagnosis.**—In the more acute forms of the affection, the symptoms readily show the existence of peri-uterine inflammation, and the chief point of difficulty is to determine whether peritonitis or cellulitis is the main element. Assistance may be derived from

* The diagnosis of this disease is taken verbatim from Dr Galabin's 'Diseases of Women.'

the consideration that, when there has been no antecedent parturition, abortion, or operation on the cervix, and when the exciting cause lies in the body of the uterus, ovaries, or Fallopian tubes, rather than in the cervix, especially if that cause be gonorrhoea, the inflammation is more likely to be peritonitic. In peritonitis, also, tenderness, is more acute, and vomiting, and other symptoms pertaining to the digestive functions, are more likely to be prominent than in cellulitis with little or no complication of peritonitis. In cellulitis, on the other hand, the initial rigor and elevation of temperature are more marked in proportion to other symptoms. On vaginal examination in the earliest stage, while the exudation is still fluid, merely tenderness and slight increase of resistance will be discovered around the cervix.* The uterus will be tender on pressure, and still more so on displacement. After consolidation of the exudation, one of two conditions will be found :

1. In the first, the inflammation, while limited to the pelvis, is generally throughout that region. This constitutes the most typically recognisable form of pelvic peritonitis. The cervix uteri is then central or slightly pushed forward, low down in the pelvis, and firmly fixed, not displaced to either side. Induration extends all round it and forms a roof to the pelvis of uniform hardness. At the posterior part,

* The diagnosis of this disease is taken verbatim from Dr Galabin's 'Diseases of Women.'

where lymph gravitates into the pouch of Douglas, it descends somewhat lower, and forms a more distinct mass. The induration can be reached from above the pelvic brim, but does not form an apparent tumour rising into the abdomen, or extending into the iliac fossa, nor does it extend so low upon the vaginal walls as that formed by cellulitis sometimes does. On rectal examination, a hard mass can be felt enveloping the cervix posteriorly, and extending at the sides of the rectum to the pelvic wall, while its upper limit can generally be scarcely reached.

2. The second condition is that in which there is a localised focus of inflammation, which may extend or not above the pelvic brim. Portions of intestine matted together by adhesions,* and often containing impacted fæces, may then form an apparent tumour, which may reach as high as the umbilicus. In this case the uterus may be pushed forwards, backwards, or to one side. If serum or pus be effused in a limited space, the tumour may be apparently cystic. The mass thus formed by adhesions may generally be distinguished from the swelling formed by cellulitis by the following characters:—In cellulitis the swelling, if of any considerable dimensions, is always on one side, tending towards the iliac fossa, rarely rises more than two or three inches above Poupart's ligament, and has a strong tendency

* The diagnosis of this disease is taken from Dr Galabin's 'Diseases of Women.'

to suppurate. In peritonitis the swelling is later in its appearance and may be more nearly central, and rises to a higher level, while, if it is situated near the groin, the abdominal walls are more movable over it than over a swelling formed by cellulitis. Such a swelling may generally be distinguished from an ovarian or fibroid tumour by its fixity and by the history of its first appearance after the onset of acute inflammatory symptoms. If situated at the side, or in front, of the uterus, it may be pressed down by the effusion of serum in its midst, so that it may become difficult or impossible to distinguish it from cellulitis. As a rule, however, it does not descend so low upon the vaginal wall. From an early extra-uterine foetation it is distinguished by the absence of the characteristic signs of that affection. A peritonitis affecting the pelvis which forms a part of cancerous or tubercular peritonitis, or originates in perityphlitis, is distinguished by recognition of the signs of the primary disease.

An induration produced by diffuse cancer of the pelvis may closely resemble that of pelvic peritonitis, and may be only distinguishable by the amount of cachexia present, and by the course of the case. The discovery of the slight increase of resistance or diminution of mobility of the uterus, which may be the sole remnant of a bygone pelvic peritonitis, often requires a highly practised touch.

Prognosis.—The prognosis is favourable as regards

ultimate recovery, but often a considerable time passes before a cure can be hoped for. Relapses are very liable to take place from slight causes, especially from the effects of cold, menstruation, &c. Secondary mischief is also far from unlikely to follow from the physical changes produced by the exudation, such as permanent adhesions or malpositions of the uterus or organic alterations in the ovaries or Fallopian tubes. This may produce sterility, amenorrhœa, or dysmenorrhœa.

Treatment.—In the treatment of this disease the important indications to bear in mind are the relief of pain and the necessity of absolute rest. The pain can be subdued by opium or morphia, and in the acute stage, when pain is severe, the local abstraction of blood by leeches will give relief. Relief will also be obtained by the constant application of warmth and moisture in the form of hot linseed poultices or fomentations. When the acute symptoms have lessened repeated counter-irritation is of great value. Mercury is recommended by some authorities, but others doubt its value. The diet should be abundant, but simple and nutritious. In the early stages of the disease milk, beef tea, eggs, &c., are indicated, but if suppuration occurs a large quantity of animal food is required with stimulants and tonics. The state of the bowels requires careful attention. When suppuration takes place the abscess should not be interfered with too early, but when it is

pointing externally it should be opened under the carbolic spray.

Pelvic Cellulitis (Parametritis, &c.)—Causation.—

Parturition, abortion, injuries, or inflammation of the cervix uteri or vagina, metritis, endometritis, and inflammations of the ovaries or Fallopian tubes, are the chief factors in the causation of this disease.

Parturition and abortion are by far the most important causes, and they may set up pelvic cellulitis either from the injuries to which the cervix and cellular tissue are exposed to during labour or from septic absorption.

Injuries and operations on the vagina, cervix, &c., cause pelvic cellulitis through septic absorption. In the same way the use of tents may produce it. Too early getting up after labour, exposure to cold, or mental emotion, as coitus, especially during menstruation or too soon after parturition, may be the determining cause of an attack.

Pathology, &c.—Pelvic cellulitis, as I have before stated, is an inflammation of the cellular tissue of the pelvis. This cellular tissue is chiefly situated on either side of the uterus, in front of the lower third of the uterus, where its cervix is attached to the bladder, behind the uterus and vagina, where a stratum connects these organs with the peritoneum and rectum, and between the peritoneal folds of the broad ligament. The essential character of the inflammation is similar to that which accompanies

areolar inflammation in other parts of the body. There is first an acute inflammatory oedema, followed by the infiltration of the connective tissue, with exudation and the formation of appreciable swellings. These may form in any part of the pelvis. A very common situation to meet with them is between the folds of the broad ligament, where they form distinct hard tumours connected with the uterus. At times the inflammation chiefly affects the cellular tissue covering the muscles lining the iliac fossa. The inflammation may end in either resolution or suppuration. The latter is more liable to occur in this inflammation than in the peritonitic form. It is commonest in puerperal cases of cellulitis, and has been estimated by some authorities as occurring in more than half the cases. The abscess generally opens in the groin or iliac region, but at times perforation takes place by the side of the anus, or into the vagina, bladder, or rectum.

Symptoms.—They are much the same as in pelvic peritonitis. The onset of the inflammation is acute in the great majority of cases, and a decided rigor and elevation of temperature (often reaching 104°) more generally occur than in the case of the peritonitic inflammation. The swellings of this disease are not so tender, but their contour is more clearly defined than those of pelvic peritonitis. Pain is also less acute. In some cases the disease sets in very insidiously, and the only symptoms may be

debility, slight intra-pelvic pain with feverishness. Two characteristic symptoms of this disease are flexion and adduction of the thigh, which are due to the exudation.

*Diagnosis.**—In the typical case of pelvic cellulitis, namely, that of phlegmon of the broad ligament, in which the cellular tissue of the broad ligament is the chief focus of inflammation, the diagnosis is generally easy. On vaginal examination, a considerable and immovable swelling, shading off into the pelvic wall, is felt on one side of the cervix and rather low down. The cervix itself is pushed towards the opposite side, and its mobility, although diminished, is often not entirely destroyed. Some thickening may also extend round the front and back of the uterus. The lateral swelling can be reached by the hand above the groin, and on bimanual examination is felt as a considerable mass between the fingers. Unless the extent of inflammation be very limited, it forms a swelling in the inguinal and iliac region, either prominent and readily tangible, or, at any rate, sufficient to give rise to a feeling of resistance, and partial or complete dulness on percussion. A cellulitic swelling, however, rarely extends higher than two or three inches above Poupart's ligament, or is liable to be mistaken for a tumour, except in the rare case of a large abscess

* The diagnosis is taken verbatim from Dr Galabin's work on 'Diseases of Women.'

between uterus and bladder, which may rise as high as half way between pubes and umbilicus. For the differential diagnosis of a swelling in the abdomen due to peritonitis, see page 72. When cellulitis affects the tissue in front of or behind the uterus, the induration caused by it is very difficult to distinguish from that due to peritonitis, and it is often complicated by that affection. When, however, the induration extends low down upon the walls of the vagina or rectum, or when it chiefly affects the base of the bladder, the diagnosis of cellulitis becomes positive. Diagnosis is often assisted by the fact of parturition, abortion, or some operation upon uterus or vagina, having preceded. From a fibroid or ovarian tumour, a cellutic swelling is distinguished by its fixity, and by the fact that no sign of tumour had existed before the onset of inflammatory symptoms. This disease must also be distinguished from extra-uterine foetation and from hæmatocele.

Prognosis.—The tendency of this disease is to recovery, and the mortality of uncomplicated cases is less than in pelvic peritonitis. It is always a tedious affection.

The sequelæ of this inflammation are :

- I. Venous thrombosis, which may cause pulmonary embolism or phlegmasia dolens.
- II. Fixation of the uterus, and consequently sterility, &c.

Treatment.—It is the same as pelvic peritonitis (*vide* page 76).

CHAPTER X

PELVIC, PERIUTERINE, OR PERIMETRIC HÆMATOCELE

THESE are the terms given to a collection of blood in the neighbourhood of the uterus. Retro-uterine hæmatocele means a blood tumour behind the uterus. Pelvic hæmatocele may occur in the pregnant or non-pregnant state, and in either case the effusion may be intra- or extra-peritoneal.

Causation.—The causes are (*a*) pathological, (*b*) predisposing, and (*c*) exciting.

(*a*) The immediate pathological causes are :

1. Rupture of diseased ovaries.
2. Reflux of blood through the Fallopian tubes from atresia, or obstruction of the cervix or vagina, or from menorrhagia.
3. Rupture of the distended Fallopian tube, which may be due to some obstruction at the uterine outlet or to occlusion of the vagina.
4. Rupture of the sac of an abdominal or ectopic pregnancy.
5. Rupture of a cyst or vessel in the broad ligament.

6. Rupture of a Graafian follicle.

7. Rupture of the uterus.

(b) The predisposing causes are :

1. Menstruation.

2. Congestion of uterus.

3. Obstruction at the cervix or vagina.

4. Certain diseases, as variola, and the other zymotic diseases, purpura, &c.

(c) The exciting causes are :

1. Excessive marital intercourse, especially during menstruation.

2. Over-exertion, exposure to cold, or emotion during a period.

3. External violence.

Intra-peritoneal effusions are nearly always retro-uterine, because when blood is poured out into the peritoneal cavity it must gravitate to the retro-uterine pouch, which is the lowest part of the general cavity. Moreover, the most frequent sources of the blood are the ostium abdominale of the Fallopian tubes and the ovary, and these structures being in the posterior part of the broad ligament, blood from them consequently falls directly into the posterior pouch.

Dr Barnes arranges the cases of perimetric hæmorrhage as follows :

Periuterine Tumours (Hæmatic).

- | | | | | | | | |
|---|---|---|----------------|---|----------------------------|---|---|
| A. Intra-peritoneal (retro-uterine) . . | I. Non-encysted (cataclysmic) | { <ol style="list-style-type: none"> 1. Rupture of uterus. 2. „ of tubal or other ectropic gestation-cysts. 3. Rupture of ovary. 4. „ of subovarian vessels, or from a uterine varix. 5. Aneurism. | | | | | |
| | | | | | | | |
| (Wilks refers to intra-peritoneal effusions from liver and from heart disease.) | | | | | | | |
| B. Extra-peritoneal . | II. Encysted (peritonitic) | { <ol style="list-style-type: none"> 1. Menstrual 2. Abortion | } regurgitant. | | | | |
| | | | | | | | |
| <table border="0"> <tr> <td data-bbox="290 637 310 837" rowspan="3">{</td> <td data-bbox="331 637 704 682">I. In the broad ligaments.</td> </tr> <tr> <td data-bbox="331 682 932 764">II. In cellular tissue, between cervix uteri and bladder.</td> </tr> <tr> <td data-bbox="331 764 932 837">III. In cellular tissue, between uterus and rectum.</td> </tr> </table> | | | | { | I. In the broad ligaments. | II. In cellular tissue, between cervix uteri and bladder. | III. In cellular tissue, between uterus and rectum. |
| { | I. In the broad ligaments. | | | | | | |
| | II. In cellular tissue, between cervix uteri and bladder. | | | | | | |
| | III. In cellular tissue, between uterus and rectum. | | | | | | |

He states, however, “I do not pretend that this is a rigorously exact classification. Hæmorrhage from rupture of an extra-uterine gestation sac may become encysted; hæmorrhage from menstrual deviation may be cataclysmic, &c.”

Symptoms and Diagnosis.—The symptoms of this affection will necessarily vary much with the nature of the case. When the loss of blood is sudden and profuse, as in cases of rupture of the uterus or ovarian disease, there will be great shock and collapse, quickly followed by all the usual signs of extreme exhaustion. When the effusion is less profuse and rapid the patient is suddenly attacked with pain in the pelvis, which is quickly followed by faintness and often collapse, with nausea or vomiting.

If the loss is extreme, anæmia and other signs of hæmorrhage will be present. Symptoms of pressure in the pelvis soon arise, causing retention of urine, tenesmus, &c. There is generally menorrhagia, and after the first day or two, fever, pain, and other signs indicating peritonitis, will appear.

The local signs are, on vaginal examination :

I. The hollow of the sacrum will be occupied by a rounded tumour, which encroaches upon the vagina and rectum.

II. The cervix will be displaced forwards and usually upwards.

III. The fundus uteri will be pushed forwards against the abdominal walls. On examination of the abdomen a rounded mass is felt behind and generally above the uterus, rising out of the pelvis towards either ilium. This tumour at first is soft, but in time becomes firm, and even hard. The diagnosis of this disease can generally be arrived at from its history and symptoms. It generally arises during a period of profuse menstruation from one of the exciting causes already mentioned, or from temporary suppression of the menses.

Dr. Barnes, in his work, gives the following tabulated form of pelvic tumours which, by situation, relations, or symptoms, resemble blood tumours.

Retro-uterine Tumours (not Hæmatic).

- I. Retroversion of the Uterus { (a) Gravid.
(b) Non-gravid.

II. Ectopic gestation-cysts { (a) Tubal.
(b) Abdominal.

III. Ovarian cysts.

IV. Dermoid cysts.

V. Cystic tumours of broad ligament.

VI. Cystic enlargement of Fallopian tubes.

VII. Retro-uterine or periuterine inflammatory deposits or abscess.

VIII. Uterine fibroids { (a) Loose.
(b) Projecting from hinder wall of uterus.

IX. Malignant tumours.

Prognosis.—This is a very grave affection and is not unfrequently followed by death. In cases of rupture of the uterus, &c., where the loss of blood is sudden and profuse, the almost inevitable result is death. The fatal termination may be due to shock and collapse, pelvic inflammation, blood poisoning, exhaustion, &c. A cure may be brought about thus :

I. The tumour may become absorbed.

II. The tumour may disappear either before or after suppuration by perforation through the roof of the vagina or into the rectum.

Treatment.—The principles of treatment are :

I. Absolute rest in the horizontal position in a cool atmosphere, with the pelvis somewhat elevated, and ice may be applied over the uterus.

II. Hæmostatics should be given, as ergot, mor-

phia, gallic acid, &c. The first two should be given by hypodermic injection.

III. When fever and other symptoms of inflammation set in the case should be treated like pelvic peritonitis.

IV. Surgical treatment. As a general rule operative measures only are required in two conditions :

1. When the tumour decomposes and suppurates, and sets up symptoms of septicæmic fever.

2. When the tumour is of great size, and from its pressure causes serious symptoms, and shows no signs of decreasing in dimensions.

Under these two conditions the tumour should be opened, which is best done by the cautery so as to avoid hæmorrhage.

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